Benign Prostatic Hyperplasia: Case Scenarios

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CASE #1

A 62-year-old man presents with a 4-year progressive history of:

- Increasing lower urinary tract symptoms (LUTS); American Urological Association (AUA) symptom score: 21
- Flow rate: 11 mL/s
- Post-void residual: 60 mL
- Prostate volume (on transrectal ultrasonography [TRUS]): 65 mL
- Prostate-specific antigen (PSA) level: 3.2 ng/mL

The patient states that he is not bothered significantly by his symptoms and does not desire active therapy.

What is his risk of progression?

This patient is at significant risk for benign prostatic hyperplasia (BPH) progression:

- Deterioration of symptoms
- Deterioration of flow rate
- Risk of acute urinary retention (AUR)
- Risk of surgery

What is the most appropriate medical therapy?

5-α-Reductase inhibitor therapy, combination 5-α-reductase inhibitor and α-blocker therapy, or very careful watchful waiting

Treatment:

The patient declines therapy.

Implications for management:

When deciding between watchful waiting and active treatment, this patient should be aware of his increased risk of BPH progression and unfavorable outcomes. Close follow-up is required to detect significant progression.

CASE #2

A 56-year-old man has a 2-year history of increasing voiding symptoms:

- AUA symptom score: 18
- Peak flow rate: 15 mL
- Post-void residual: 10 mL
- Prostate volume (on TRUS): 25 mL
- PSA level: 0.9 ng/mL

This patient has bothersome symptoms and desires treatment.

What is his risk of progression?

The risk of BPH progression in this patient with a small prostate and low baseline serum PSA level is low.

What is the most appropriate medical therapy?

α-Blocker therapy

Treatment:

The patient begins α-blocker therapy and, within several weeks, reports significant symptom amelioration.

Implications for therapy:

Although bothered by his symptoms, this patient has a low risk of BPH progression. He is an ideal candidate for long-term α-blocker therapy.

CASE #3

A 68-year-old man with a 5-year history of increasing voiding symptoms:

- AUA symptom score: 22
- Maximum flow rate: 13 mL/s
- Residual urine: 50 mL
- Prostate volume (on TRUS): 55 mL
- PSA level: 3.1 ng/mL

This patient desires therapy because his symptoms are interfering with his daily activities and affecting his quality of life.

What is his risk of progression?

This patient is at significant risk for BPH progression:

- Deterioration of symptoms
- Deterioration of flow rate
- Risk of AUR
- Risk of surgery

What is the most appropriate medical therapy?

This patient would experience rapid amelioration of his symptoms with α-blocker therapy, but would experience the most long-term benefits in terms of symptom amelioration and prevention of BPH progression with combination therapy (5-α-reductase inhibitor and α-blocker).

Treatment:

The patient begins α-blocker therapy. Within several weeks he experiences significant symptom amelioration and quality-of-life improvement. He is happy with the clinical results of α-blocker therapy.

Implications for management:

This patient has a reasonable chance for long-term symptom amelioration, but would experience greater improvement with combination therapy. He remains at increased risk for long-term progression, in terms of AUR and need for BPH-related surgery.

CASE #4

A 62-year-old man presents with a 4-year progressive history of:

- Increasing LUTS; AUA symptom score: 21
- Flow rate: 11 mL/s
- Post-void residual: 60 mL
- Prostate volume (on TRUS): 65 mL
- PSA level: 3.2 ng/mL

This patient has bothersome symptoms and desires treatment.

What is his risk of progression?

This patient is at significant risk for BPH progression:

- Deterioration of symptoms
- Deterioration of flow rate
- Risk of AUR
- Risk of surgery

What is the most appropriate medical therapy?

Combination therapy will produce the most clinically significant response, in terms of long-term amelioration of symptoms and reduction in risk of BPH progression (ie, symptom deterioration, AUR, and need for surgery).

Treatment:

The patient begins combination α-blocker and 5-α-reductase inhibitor therapy. He reports significant symptom improvement and quality-of-life improvement. The patient is happy with this therapy but questions whether he needs to continue both medications for the rest of his life.

Implications for medical therapy:

Strong evidence exists that the patient will do well on long-term combination therapy. Weak evidence exists that the patient will do well if α-blocker therapy is discontinued at 9 to 12 months and the 5-α-reductase inhibitor is continued indefinitely.